

APPROVED	O.G: FIG.	
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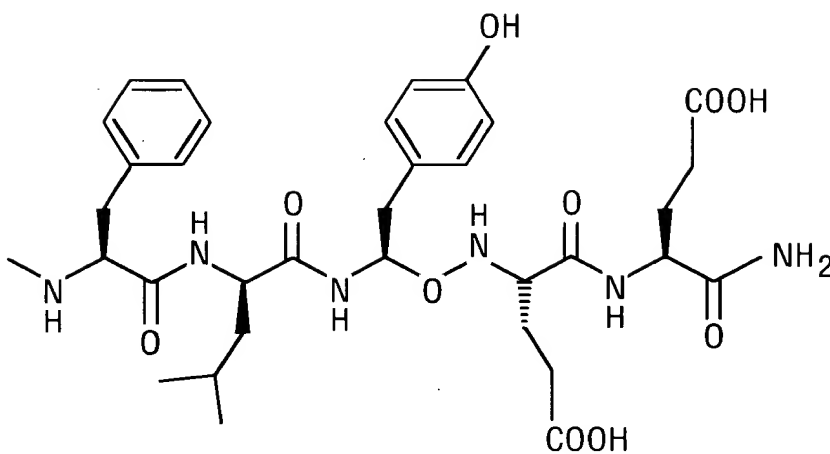
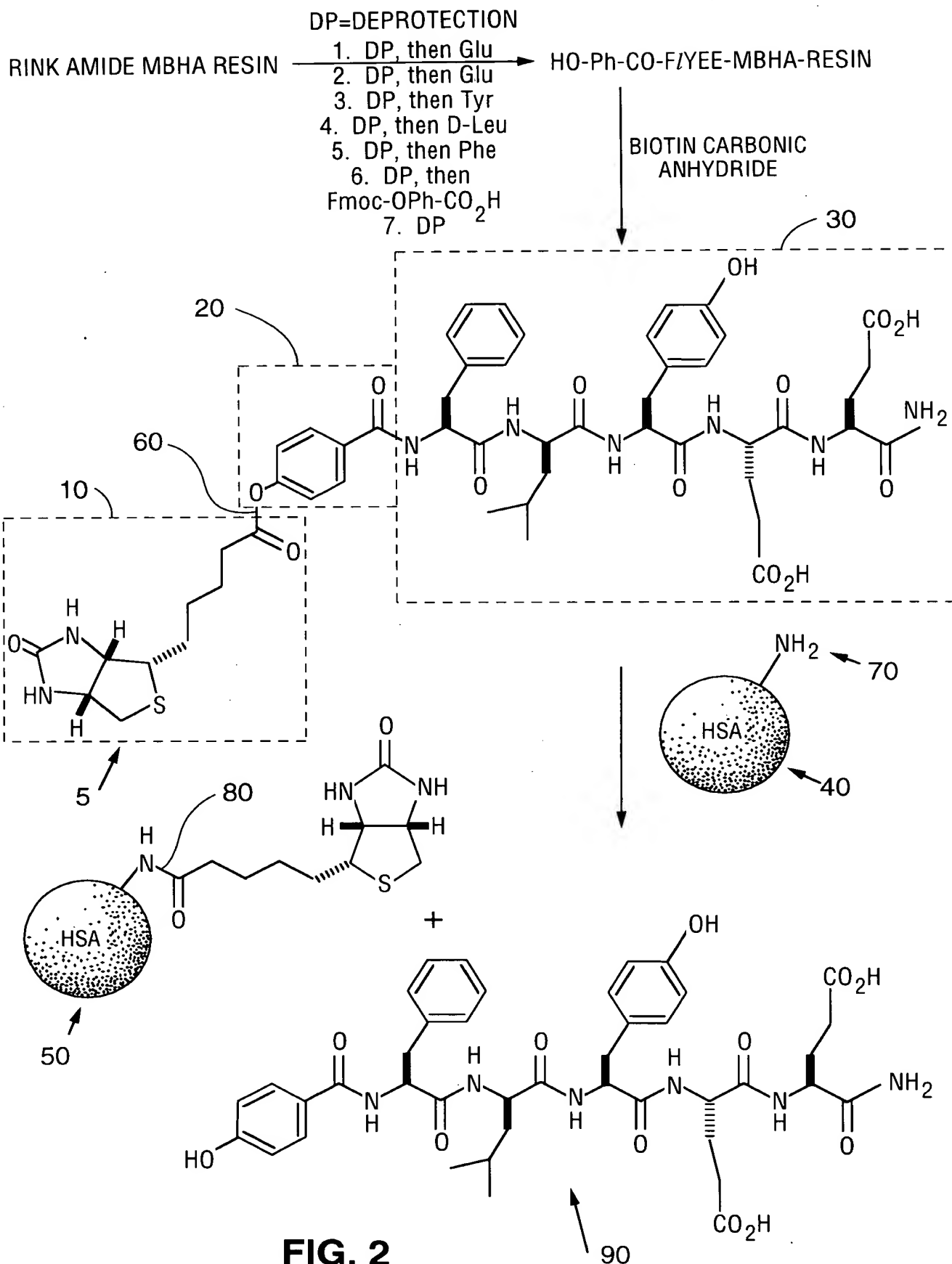
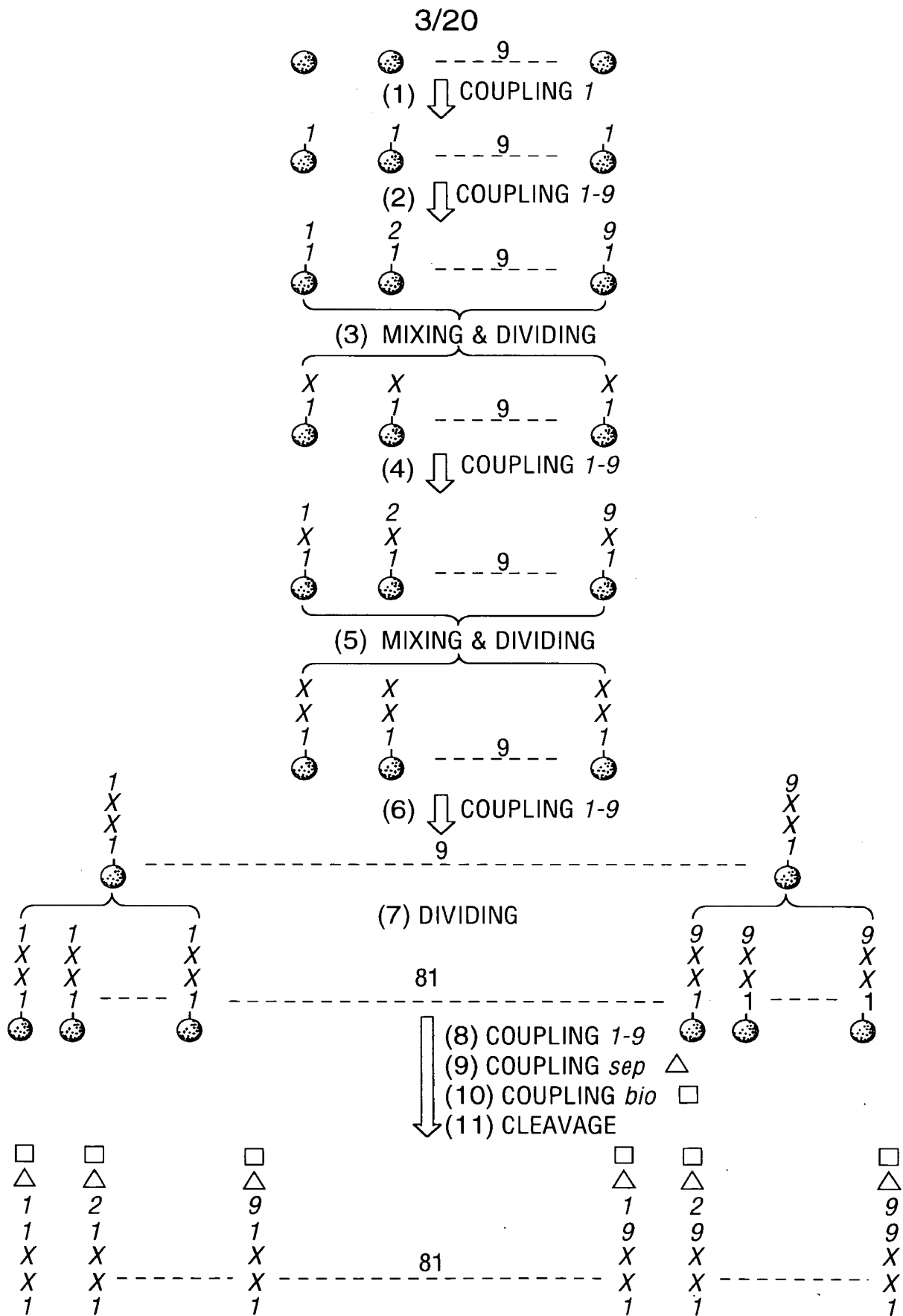


FIG. 1

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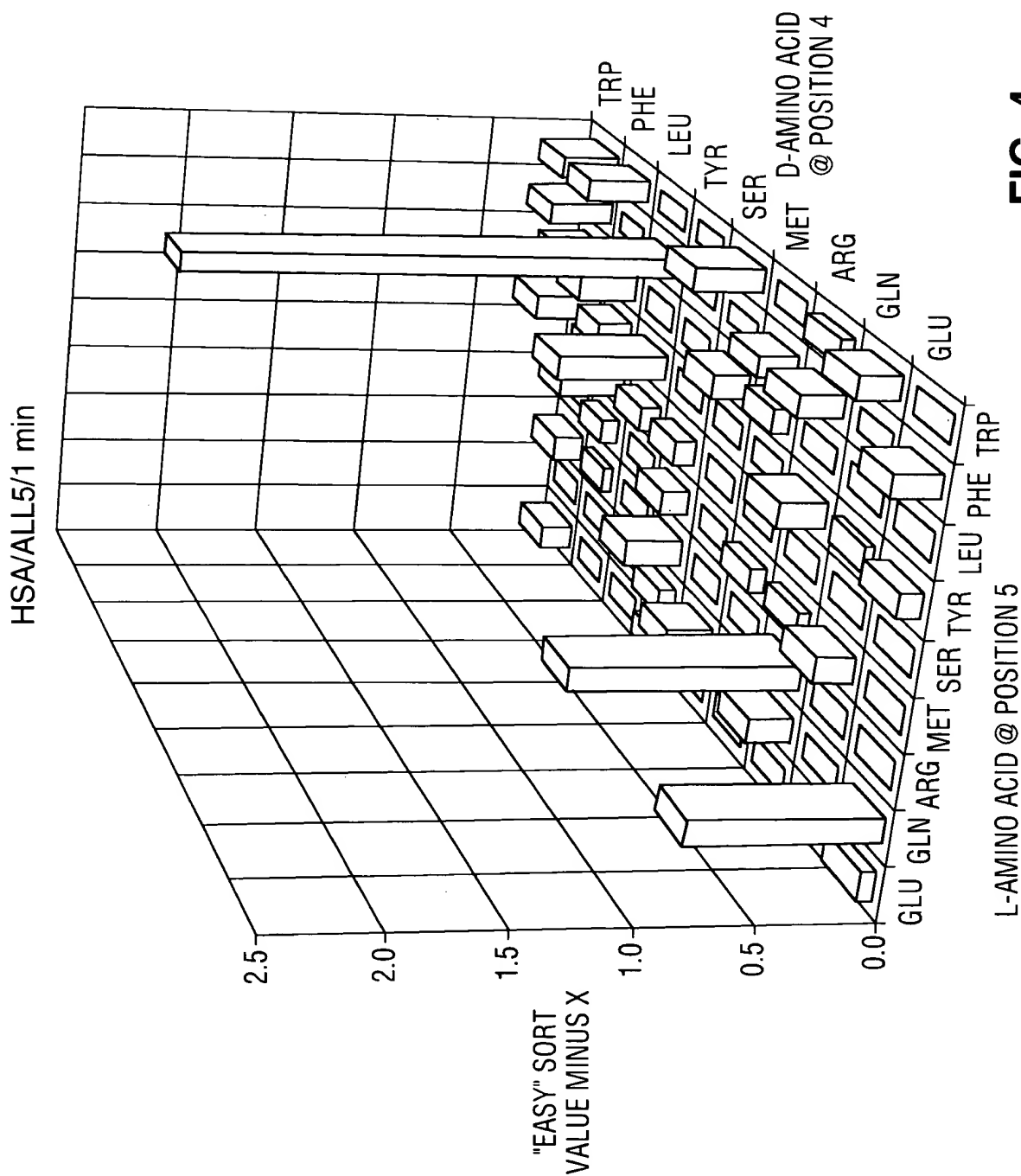


FIG. 4

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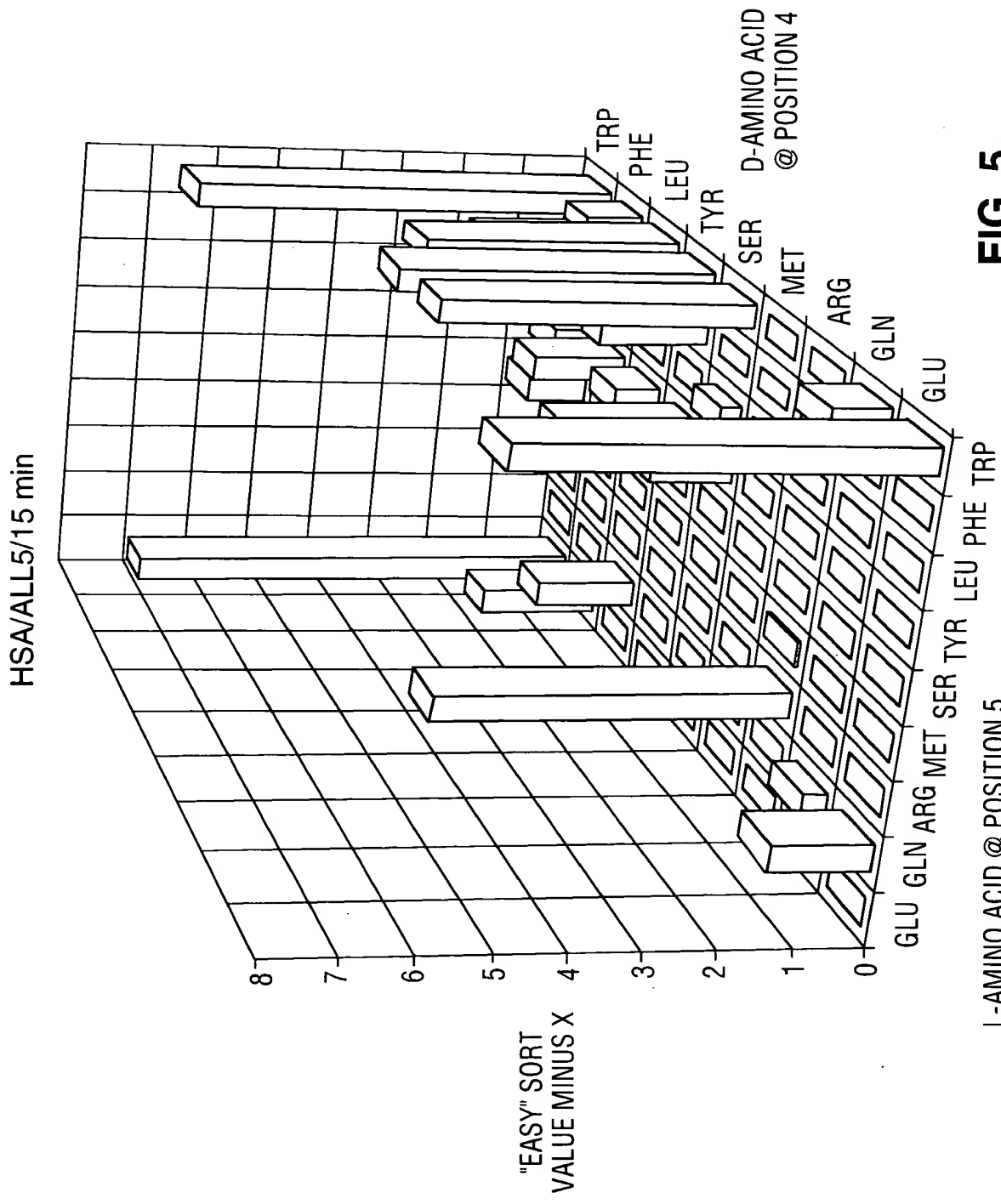
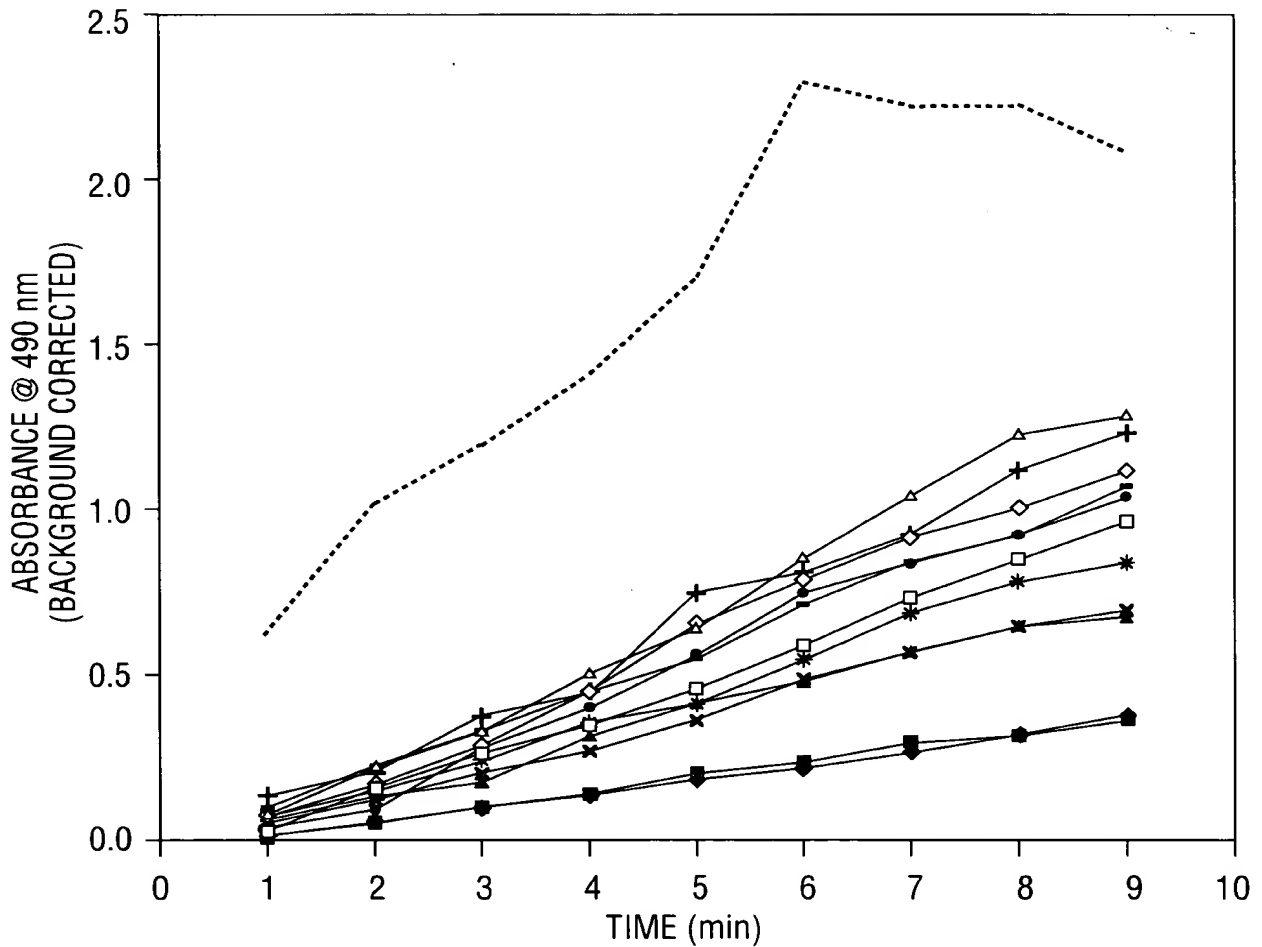


FIG. 5

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- ◆ S(phenyl)-CONH2 (Tq = 5 sec)
- S(phenyl)-CONH2 (Tq = 5 sec)
- ▲ x-F-L-E-X-E-NH2
- ✕ x-F-L-Q-X-E-NH2
- * x-F-L-R-X-E-NH2
- x-F-L-M-X-E-NH2
- + x-F-L-S-X-E-NH2
- x-F-L-Y-X-E-NH2
- x-F-L-L-X-E-NH2
- ◇ x-F-L-F-X-E-NH2
- x-F-L-W-X-E-NH2
- △ MIXTURE (Tq = 5 sec)

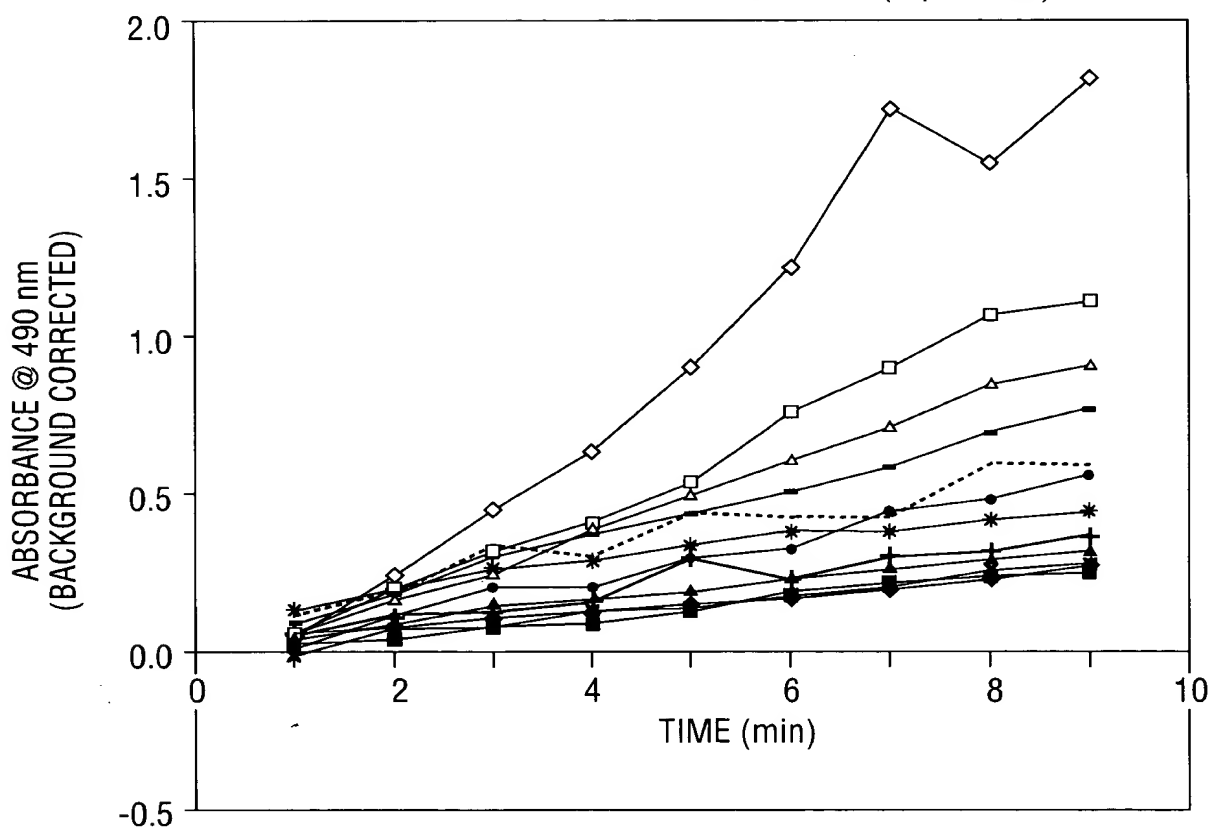


REACTION OF HSA WITH BIOTIN-S-(PHENYL)CONH-F-L-O-X-NH2;
QUENCH TIME = 5 sec.

FIG. 6A

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- ◆ S(phenyl)-CONH₂ (T_q = 5 sec)
- S(phenyl)-CONH₂ (T_q = 5 sec)
- ▲ x-W-E-E-X-E-NH₂ (T_q = 5 sec)
- ✕ x-W-E-Q-X-E-NH₂ (T_q = 5 sec)
- * x-W-E-R-X-E-NH₂ (T_q = 5 sec)
- x-W-E-M-X-E-NH₂ (T_q = 5 sec)
- + x-W-E-S-X-E-NH₂ (T_q = 5 sec)
- x-W-E-Y-X-E-NH₂ (T_q = 5 sec)
- x-W-E-L-X-E-NH₂ (T_q = 5 sec)
- ◇ x-W-E-F-X-E-NH₂ (T_q = 5 sec)
- x-W-E-W-X-E-NH₂ (T_q = 5 sec)
- △ MIXTURE (T_q = 5 sec)



REACTION OF HSA WITH BIOTIN-S-(PHENYL)_p CONH-W-E-O-X-NH₂;
QUENCH TIME = 5 SEC.

FIG. 6B

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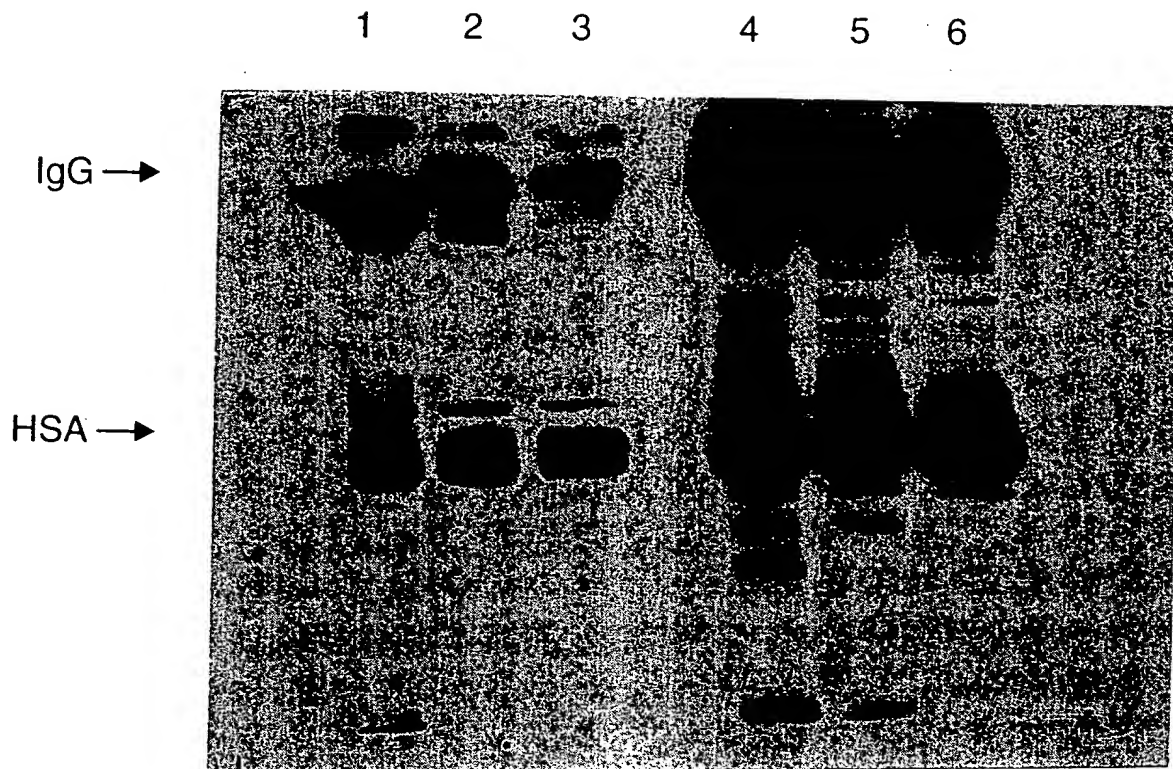


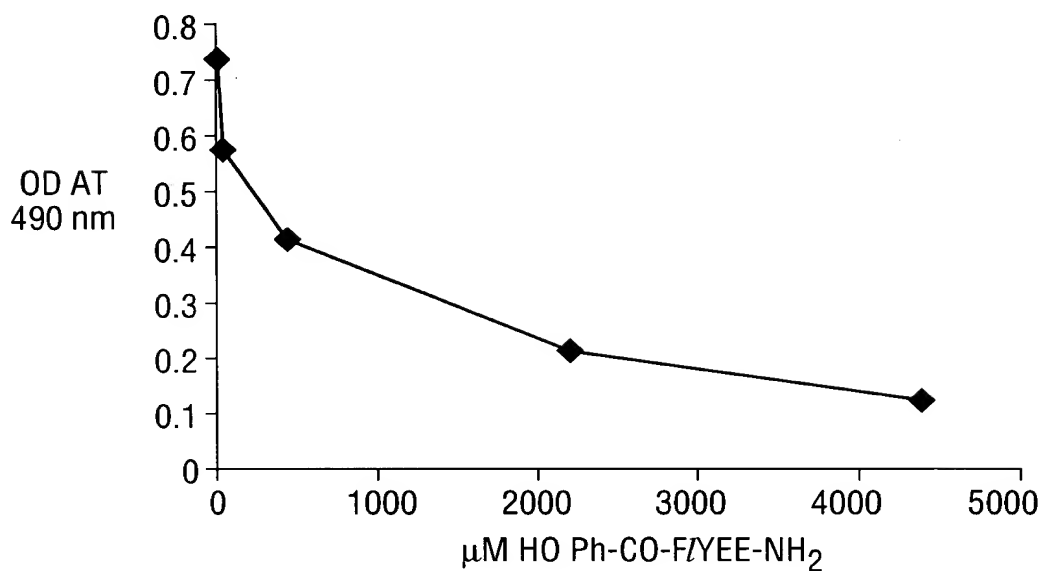
FIG. 7

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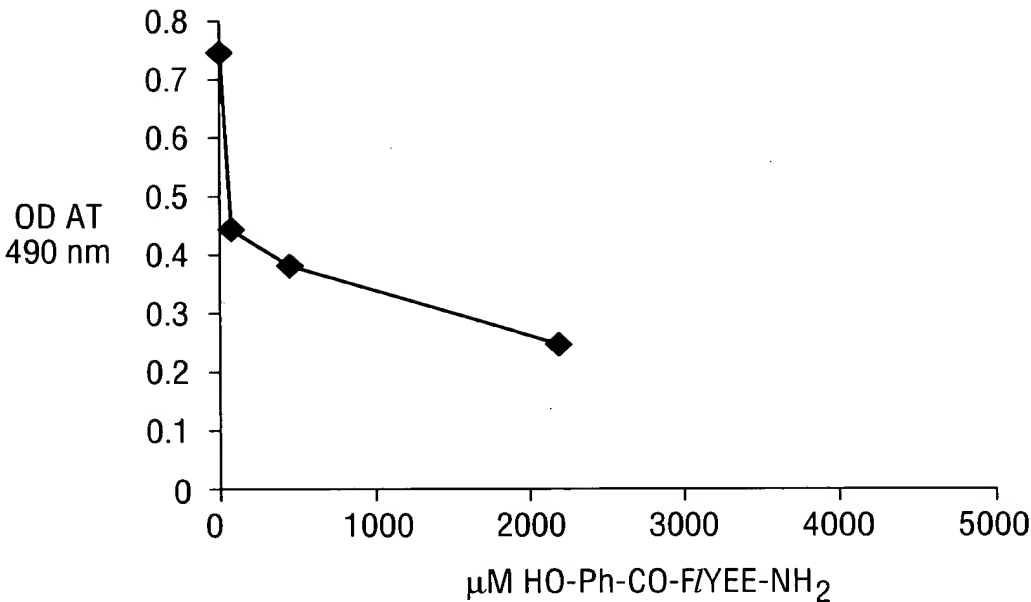
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COMPETITION OF BIOTIN-OPh-CO-F/YEE-NH₂ (44μM)
vs. HO-Ph-CO-F/YEE-NH₂

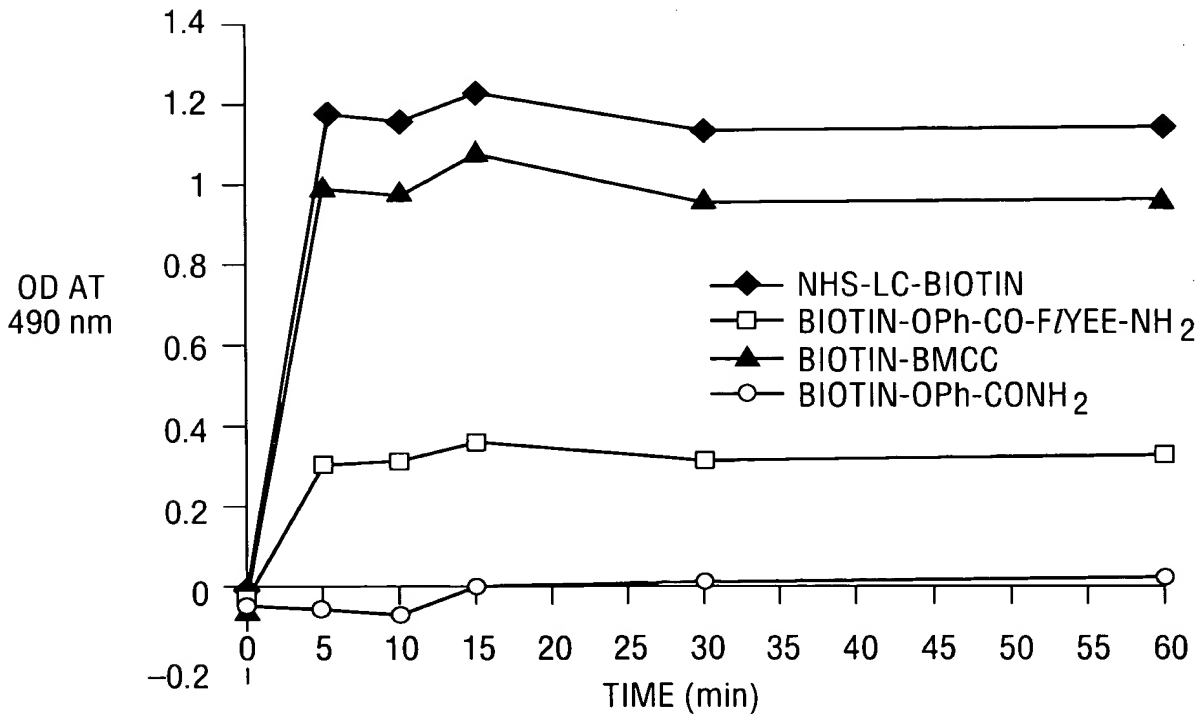
FIG. 8

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"COMPETITION" TEST BETWEEN BIOTIN-OPh-F/YEE-NH₂ (44μM) AND HO-Ph-CO-F/YEE-NH₂

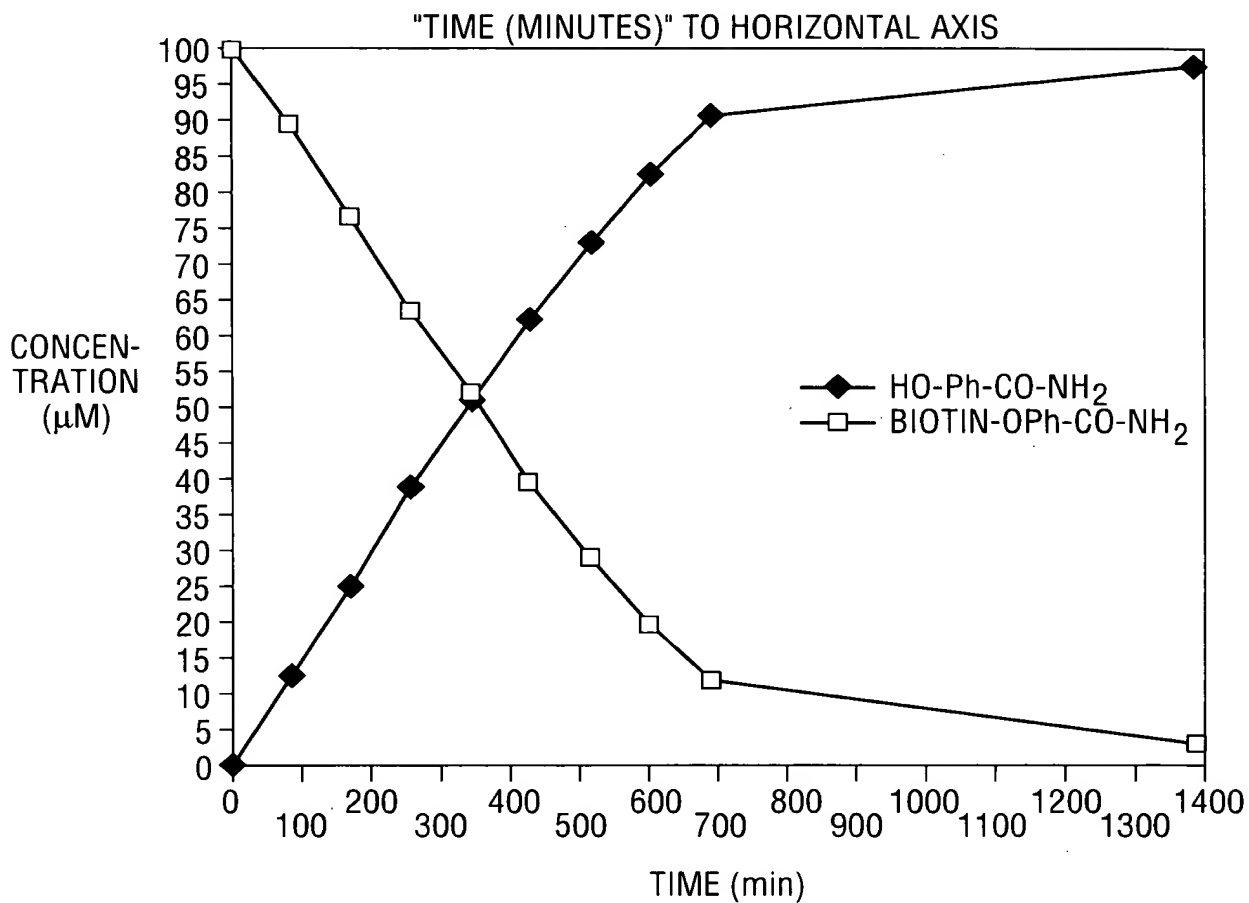
FIG. 9



KINETIC STUDY BY ELISA CAPTURE

FIG. 10

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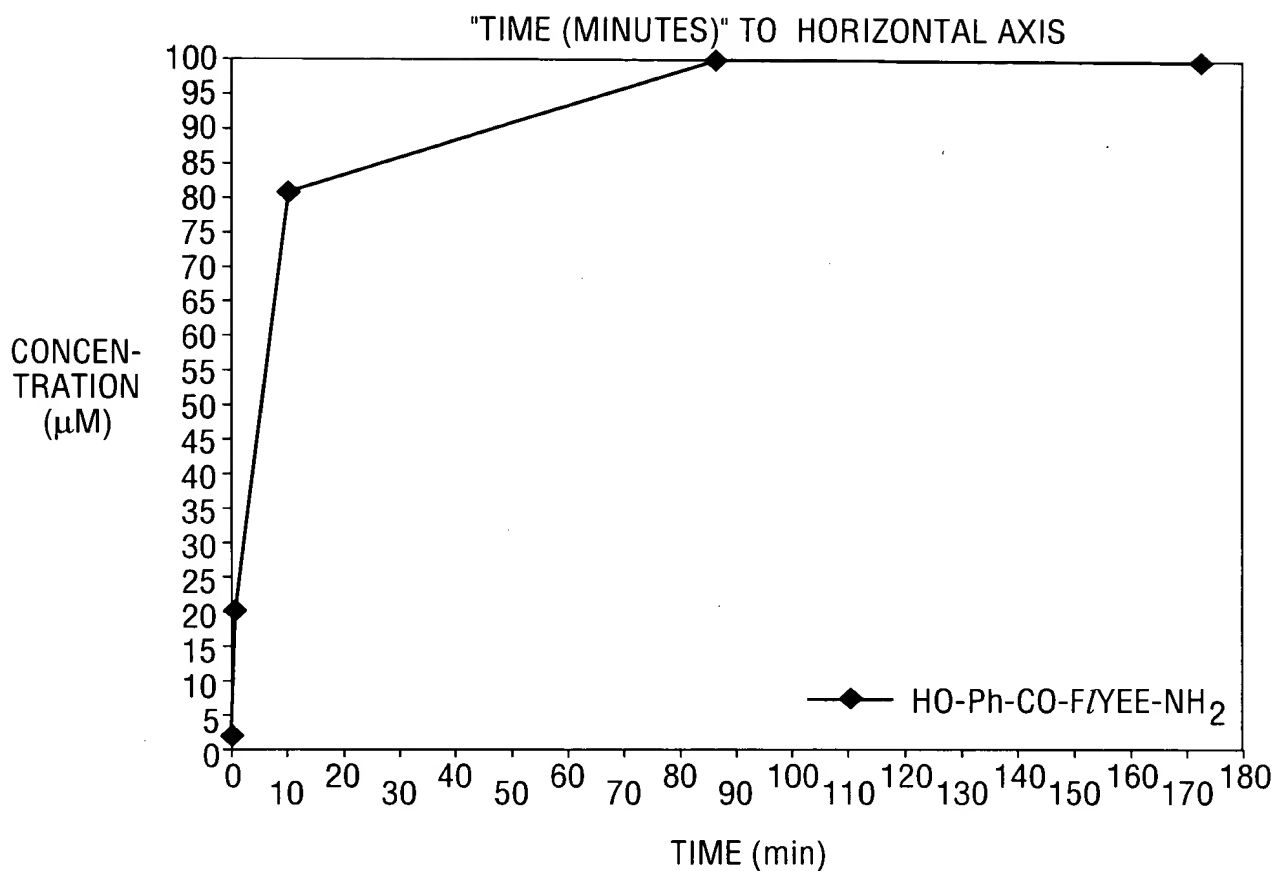
RATE OF REACTION OF 600 μM HSA WITH 100 μM BIOTIN-OPh-CONH₂ IN pH 7.4 PBS AT RT

FIG. 11

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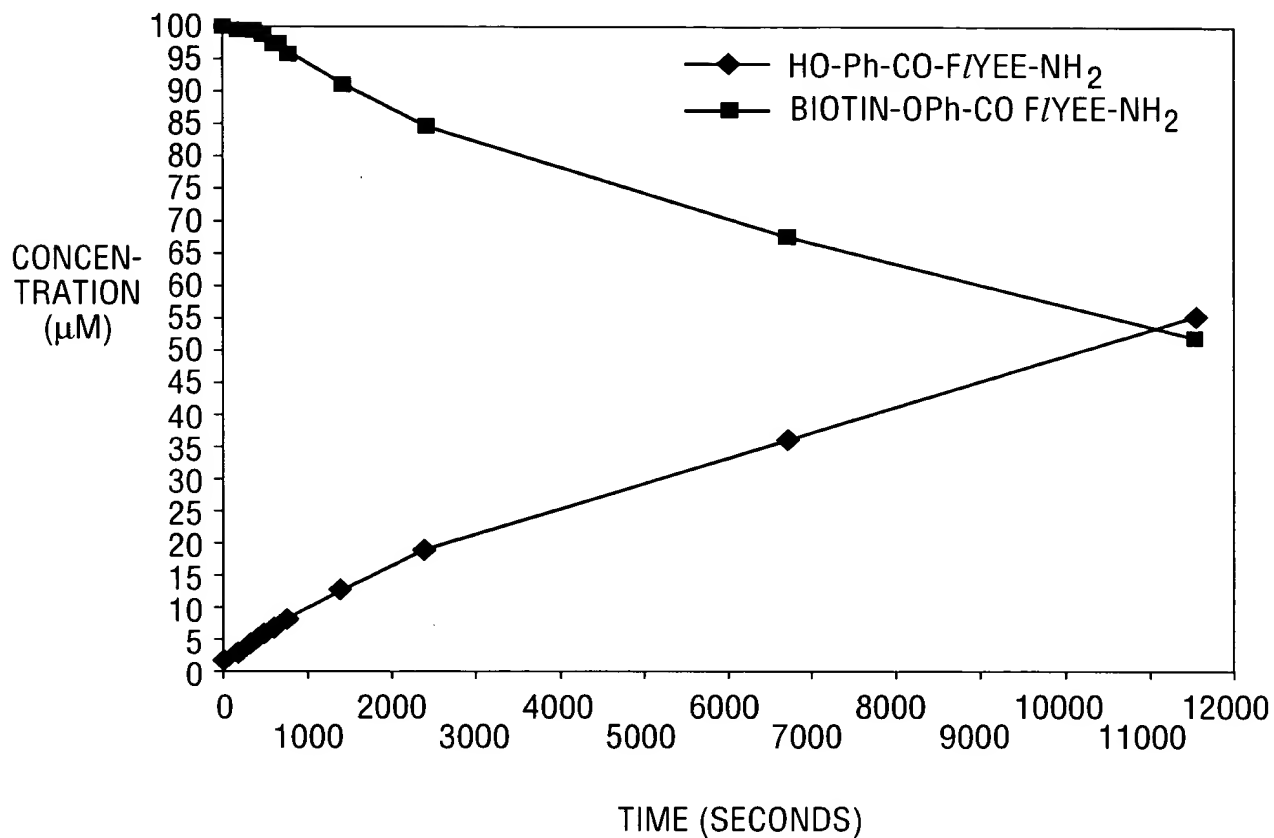
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RATE OF REACTION OF 100 μM BIOTIN-OPh-CO-F/YEE-NH₂
IN COMMERCIAL HUMAN PLASMA

FIG. 12

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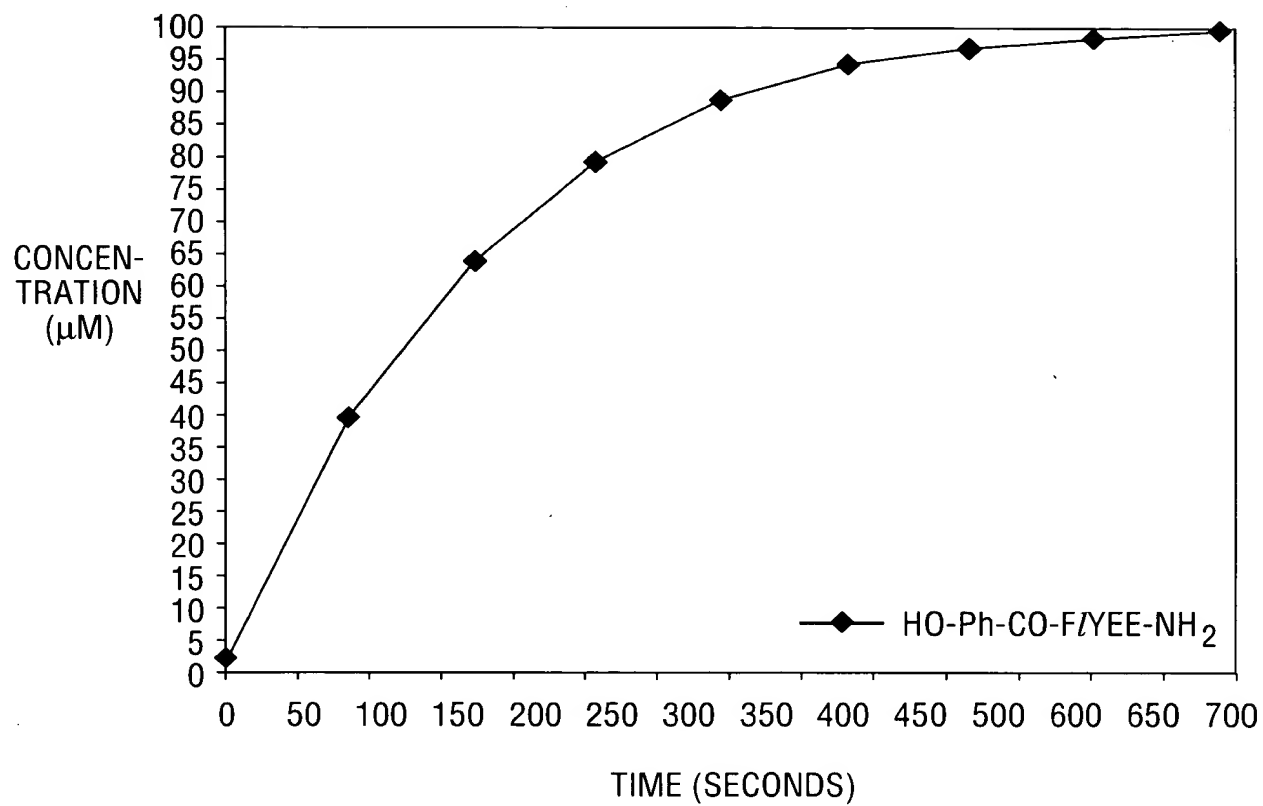
RATE OF HYDROLYSIS OF 100 μM BIOTIN-OPh-CO-F/YEE-NH₂
IN pH 7.4 PBS AT RT

FIG. 13

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RATE OF REACTION OF 100 μM BIOTIN-OPh-CO-F/YEE-NH₂
WITH 600 μM HSA AT RT

FIG. 14

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"DEVICE A" FROM HSACONTROL(BOPHF/YEE)RCM-TD

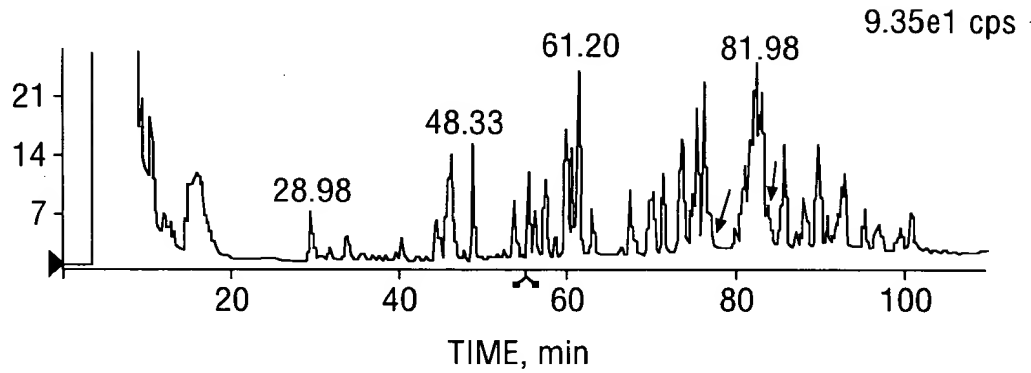


FIG. 15A

"DEVICE A" FROM HSA-BIO(OPHF/YEE)-RCM-TD

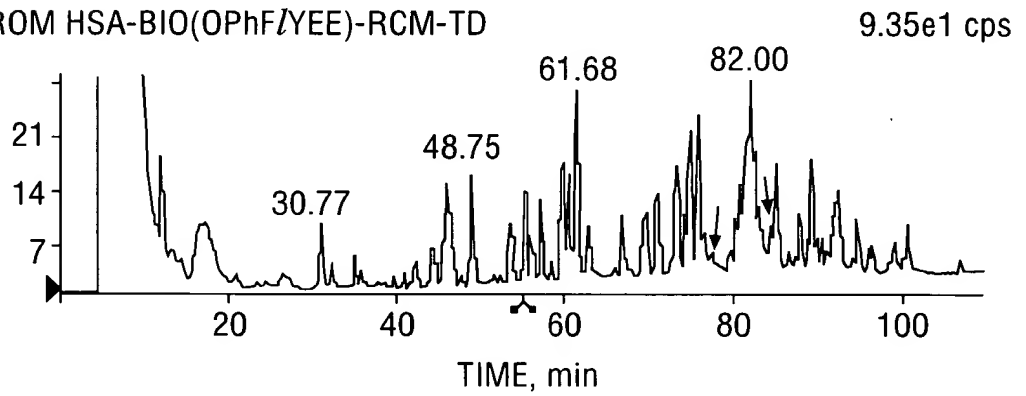


FIG. 15B

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DP=DEPROTECT WITH 20% PIPERIDINE

1. DP, then Fmoc-Glu(OtBu)-OH
2. DP, then Fmoc-Glu(OtBu)-OH
3. DP, then Fmoc-Tyr(tBu)-OH
4. DP, then Fmoc-D-Leu-OH
5. DP, then Fmoc-Phe-OH
6. DP, Fmoc-OPh-CO₂H, DP

Fmoc-RINK AMIDE MBHA RESIN

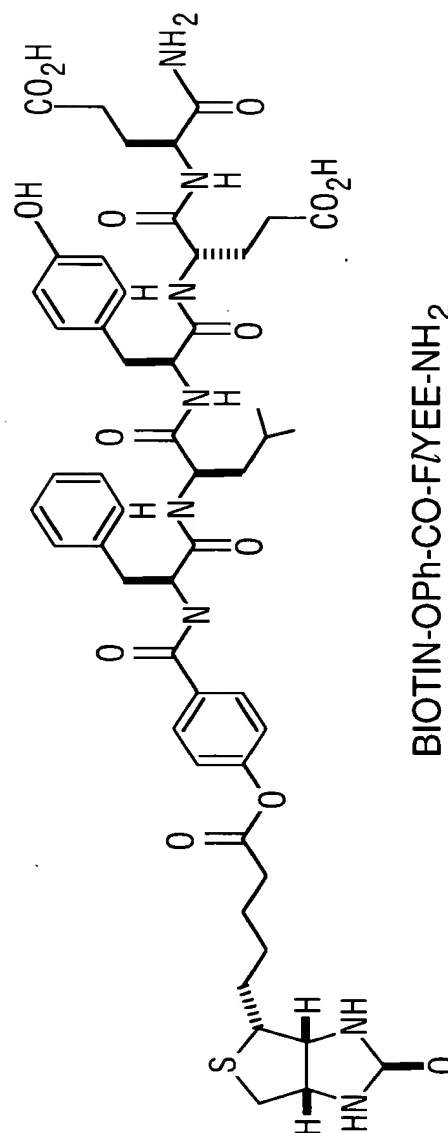
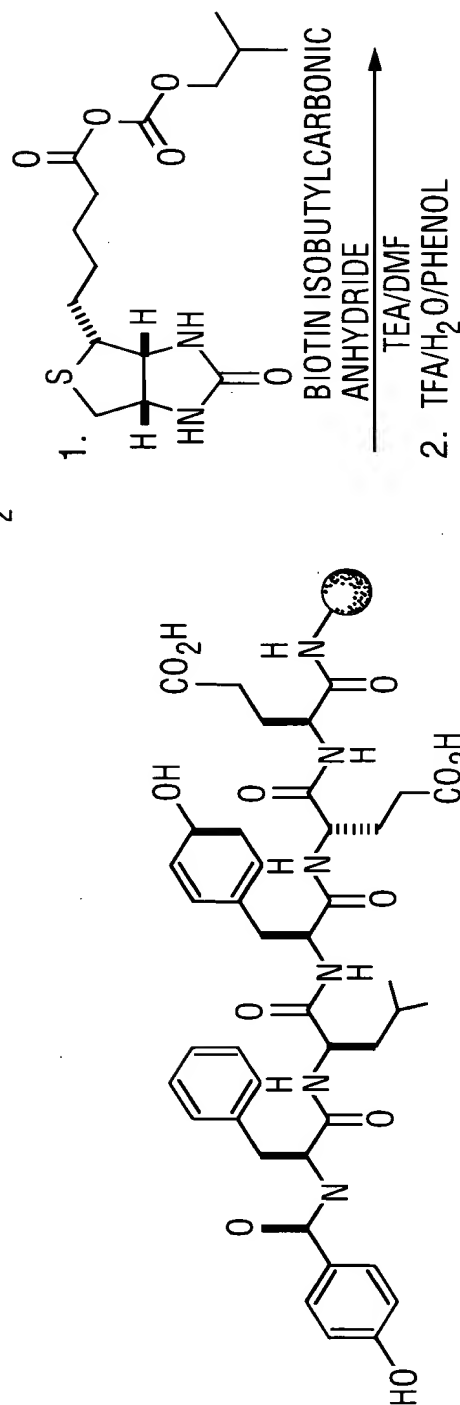
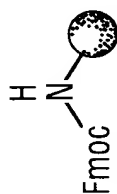


FIG. 16

BIOTIN-OPh-CO-FAYEE-NH₂

DP=DEPROTECT WITH 20% PIPERIDINE

1. DP, then Fmoc-Glu(OtBu)-OH
2. DP, then Fmoc-Glu(OtBu)-OH
3. DP, then Fmoc-Tyr(tBu)-OH
4. DP, then Fmoc-D-Leu-OH
5. DP, then Fmoc-Phe-OH
6. DP, Fmoc-OPh-CO₂H, DP

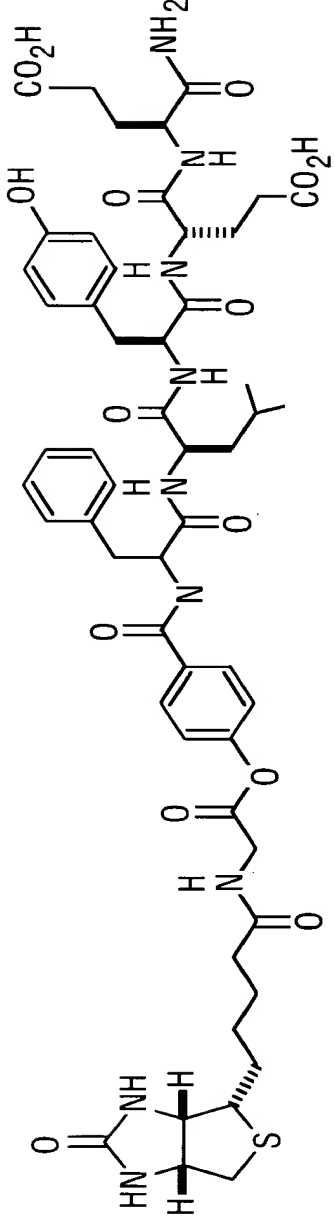
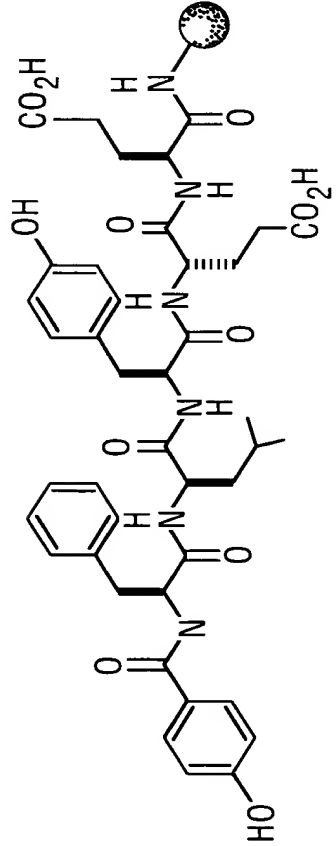
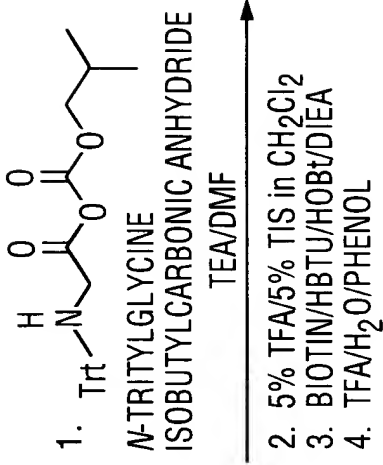
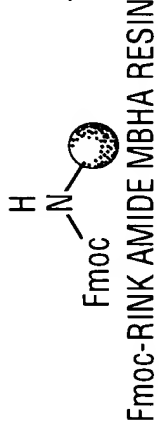

BIOTIN-Gly-OPh-CO-FAYEE-NH₂

FIG. 17

DP=DEPROTECT WITH 20% PIPERIDINE

1. DP, then Fmoc-Glu(OtBu)-OH
2. DP, then Fmoc-Glu(OtBu)-OH
3. DP, then Fmoc-Tyr(tBu)-OH
4. DP, then Fmoc-D-Leu-OH
5. DP, then Fmoc-Phe-OH
6. DP, Fmoc-OPh-CO₂H, DP

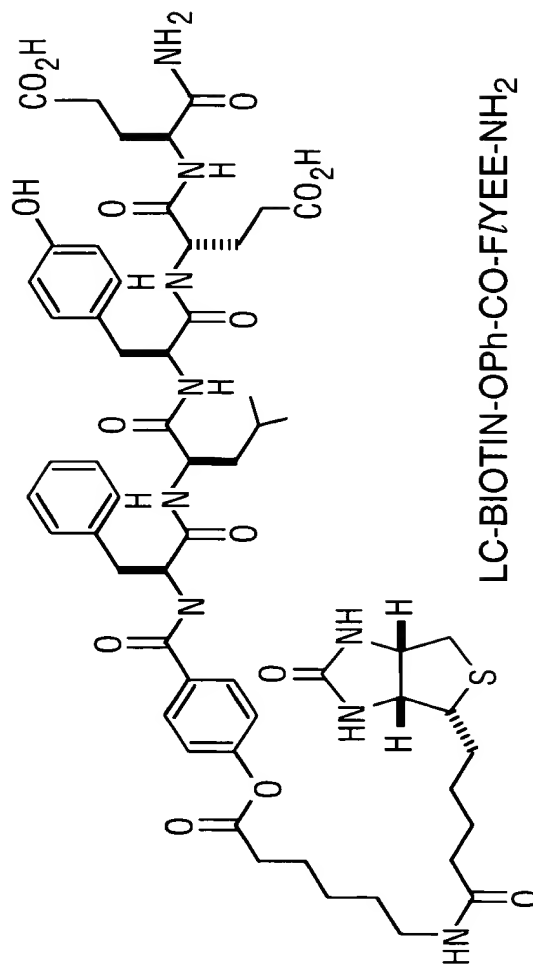
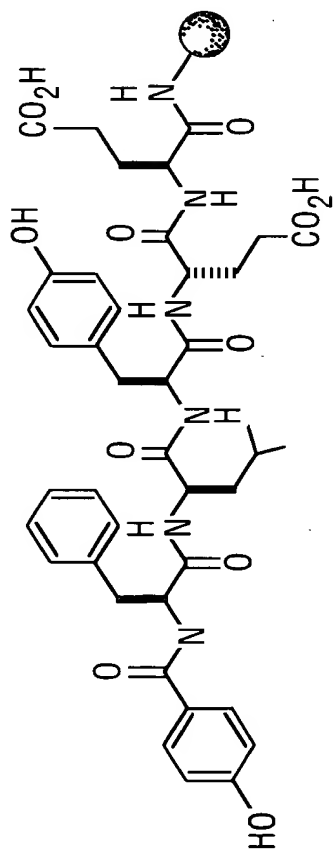
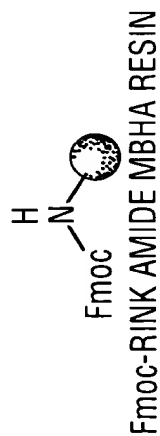


FIG. 18

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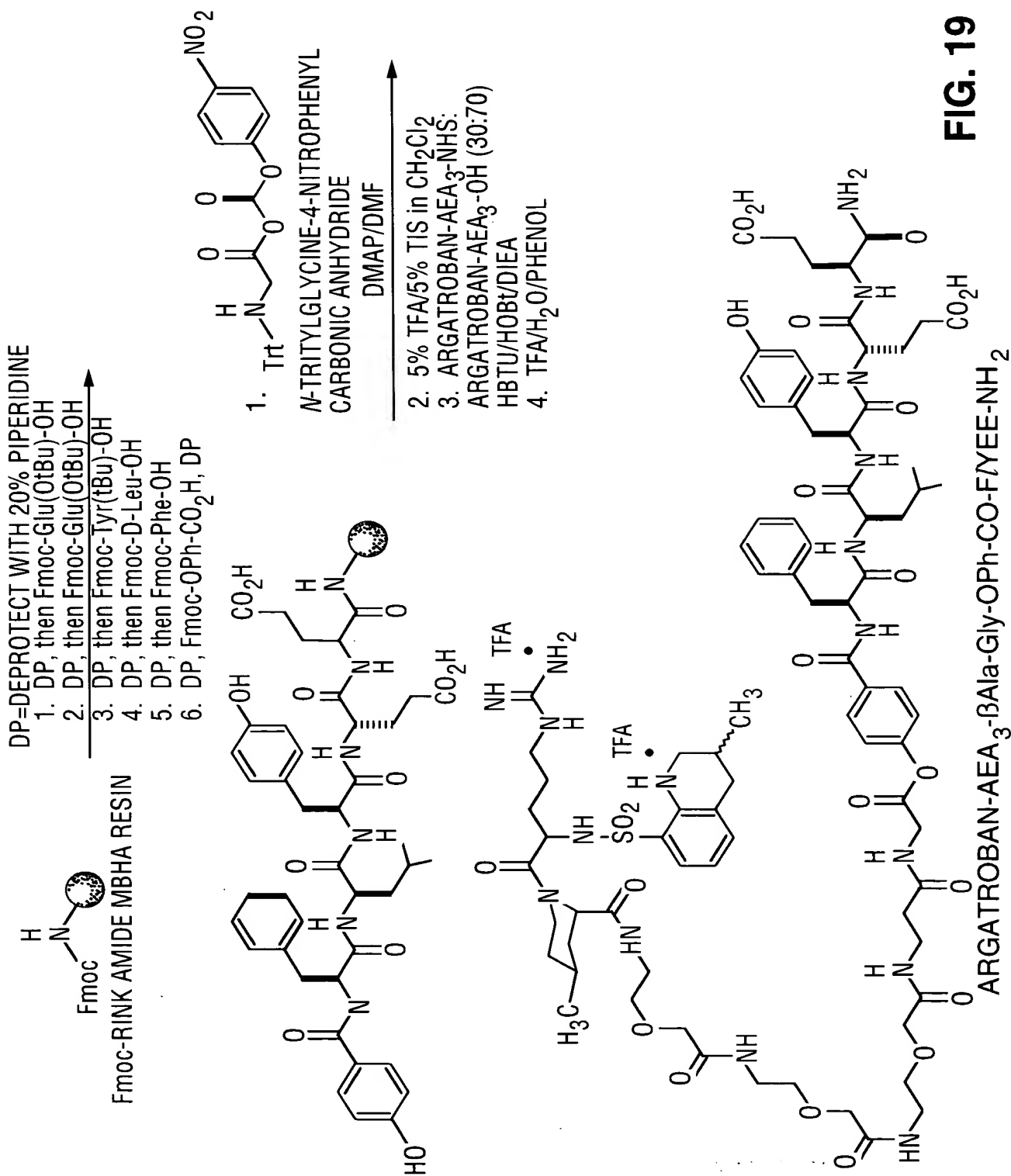


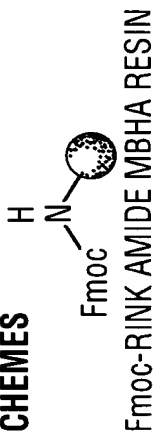
FIG. 19

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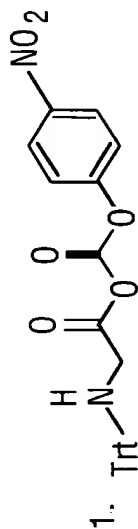
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SYNTHETIC SCHEMES



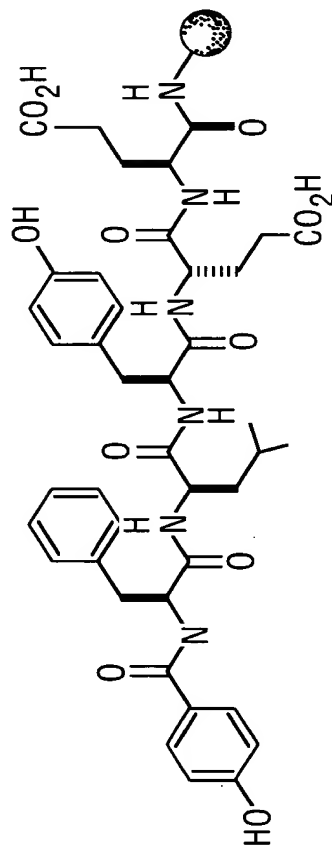
DP=DEPROTECT WITH 20% PIPERIDINE

1. DP, then Fmoc-Glu(OtBu)-OH
2. DP, then Fmoc-Glu(OtBu)-OH
3. DP, then Fmoc-Tyr(tBu)-OH
4. DP, then Fmoc-D-Leu-OH
5. DP, then Fmoc-Phe-OH
6. DP, Fmoc-OPh-CO₂H, DP



N-TRITYLGLYCINE-4-NITROPHENYL
CARBONIC ANHYDRIDE

DMAP/DMF



2. 5% TFA/5% TIS in CH₂Cl₂
3. Trt-AEA-OH
HBTU/HOBt/DIEA
4. 5% TFA/5% TIS in CH₂Cl₂
5. FITC/TEA/DMF
6. TFA/H₂O/TIS

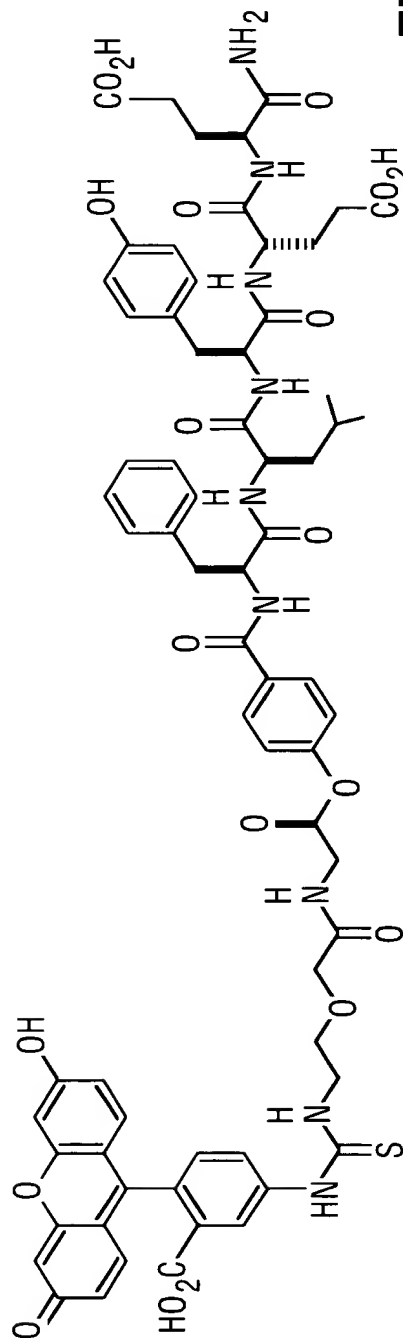


FIG. 20

FLUORESCIN-THIOUREA-AEA₃-Gly-OPh-CO-FYEE-NH₂